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  FILE 'AGRICOLA, LIFESCI, CONFSCI, BIOSIS, VETU, VETB, PHIN, PHIC' ENTERED
     AT 16:49:17 ON 20 MAY 2003
L13         2560 S IMMUNE(W)GLOBULIN
L14           12 S L13 AND BOTULINUM
L15           10 DUP REM L14 (2 DUPLICATES REMOVED)

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Meeting Info.: 981 0367: Society of Toxicology 37th Annual Meeting (9810367). Seattle, WA (USA). 1-5 Mar 1998. National Institute of Health, Proctor & Gamble, Lilly and Co., Eastman Kodak Company, Pfizer Central Research, RJ Reynolds.

DT Conference

FS DCCP

LA English

=>

sequences of tetanus toxin, mouse antitetanus serum, and human Tetanus **Immune Globulin**. Antibodies produced against the synthetic peptides recognized tetanus toxin in an enzyme-linked immunosorbent assay and on Western blots (immunoblots) but did not appear to recognize the native protein. One of the antitetanus peptide antibodies, which was produced against a peptide from the amino terminal, cross-reacted with three of the four **botulinum** toxins on immunoblots. This antibody, 1, reacted strongly with **botulinum** toxins B and C1 and weakly with E but did not recognize type A toxin. None of the other peptide antibodies cross-reacted with the **botulinum** toxins. Mouse antitetanus serum and human Tetanus **Immune Globulin** did not recognize any of the **botulinum** toxins on immunoblots. The amino-terminal region of the light chain of tetanus toxin and **botulinum** toxin types A, B, C1, and E are known to have sequence homology. Our data demonstrate that for tetanus toxin and **botulinum** toxin types B, C1, and E this region also has immunological homology. Type A, which has the least amount of homology with tetanus toxin in this region, does not share this immunological homology. These data also suggest that although the native structures of tetanus and **botulinum** toxins have relatively few common immunological determinants, the two toxins may contain short stretches of identical or very similar amino acid sequences.

AN 1989:124826 BIOSIS
DN BA87:59479
TI SEQUENCE HOMOLOGY BETWEEN TETANUS AND **BOTULINUM** TOXINS DETECTED BY AN ANTIPEPTIDE ANTIBODY.
AU HALPERN J L; SMITH L A; SEAMON K B; GROOVER K A; HABIG W H
CS DIV. BACTERIAL PRODUCTS, CENT. BIOL. EVALUATION RES., FOOD AND DRUG ADM., BETHESDA, MD. 20892.
SO INFECT IMMUN, (1989) 57 (1), 18-22.
CODEN: INFIBR. ISSN: 0019-9567.
FS BA; OLD
LA English

L15 ANSWER 9 OF 10 CONFSCI COPYRIGHT 2003 CSA
AN 1998:45944 CONFSCI
DN 98-045944
TI Estimation of **botulinum** human **immune globulin** doses that produce biologically relevant antibody levels in guinea pig sera
AU Niemuth, N.A.; Gelzleichter, T.R.; Menton, R.G.; Matthews, M.C.; Langford, M.J.; Olson, C.T.
CS Battelle Memorial Inst., Columbus, OH, USA
SO Society of Toxicology, 1767 Business Center Drive, Suite 302, Reston, VA 20190-5332, USA, Abstracts available. Price $45. Poster Paper No. 1306. Meeting Info.: 981 0367: Society of Toxicology 37th Annual Meeting (9810367). Seattle, WA (USA). 1-5 Mar 1998. National Institute of Health, Proctor & Gamble, Lilly and Co., Eastman Kodak Company, Pfizer Central Research, RJ Reynolds.
DT Conference
FS DCCP
LA English

L15 ANSWER 10 OF 10 CONFSCI COPYRIGHT 2003 CSA
AN 1998:45943 CONFSCI
DN 98-045943
TI Evaluation of passive protection against five serotypes of **botulinum** toxin provided by **botulinum** human **immune globulin** in a guinea pig model
AU Gelzleichter, T.R.; Myers, M.A.; Menton, R.G.; Niemuth, N.A.; Langford, M.J.; Olson, C.T.
CS Battelle Memorial Inst., Columbus, OH, USA
SO Society of Toxicology, 1767 Business Center Drive, Suite 302, Reston, VA 20190-5332, USA, Abstracts available. Price $45. Poster Paper No. 1305.

primarily affects infants under 1 year of age. We report a 3-year-old child with stage IV neuroblastoma who developed symptoms of progressive motor weakness, bulbar palsy and respiratory failure 42 days after autologous BMT. The diagnosis of infant botulism was established by identifying botulism toxin in the stool. Human botulism **immune globulin** (HBIG) was administered. Following the diagnosis, the patient made significant recovery over the next 7 weeks and was successfully extubated from mechanical ventilation. However, her neuroblastoma eventually recurred and she subsequently died of progressive disease. Although the etiology of the development of infant botulism in this case following autologous BMT still remains unclear, alteration of the intestinal microbial environment from gut sterilization and laminar airflow room isolation or, alternatively, immune suppression during pre- and post-autologous BMT and activation of endogenous spores may have contributed to the development of this disease. The use of HBIG in children with botulism over 1 year of age may be beneficial.

AN 1994:180724 BIOSIS
DN PREV199497193724
TI Development of infant botulism in a 3-year-old female with neuroblastoma following autologous bone marrow transplantation: Potential use of human botulism **immune globulin**.
AU Shen, W.-P. V.; Felsing, N.; Lang, D.; Goodman, G.; Cairo, M. S. (1)
CS (1) Hematol./Oncol. Res. Bone Marrow Transplantation, Children's Hosp. Orange County, 455 S. Main St., Orange, CA 92668 USA
SO Bone Marrow Transplantation, (1994) Vol. 13, No. 3, pp. 345-347. ISSN: 0268-3369.
DT Article
LA English

L15 ANSWER 6 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1994:95406 BIOSIS
DN PREV199497108406
TI An unusual case of botulism and the successful use of human botulism **immune globulin** (HBIG) in a 3 year old female with neuroblastoma following autologous bone marrow transplantation.
AU Shen, V.; Felsing, N.; Lang, D.; Cairo, M. S.
CS Children's Hosp. Orange County, Orange, CA USA
SO Blood, (1993) Vol. 82, No. 10 SUPPL. 1, pp. 641A.
Meeting Info.: Thirty-fifth Annual Meeting of the American Society of Hematology St. Louis, Missouri, USA December 3-7, 1993
ISSN: 0006-4971.
DT Conference
LA English

L15 ANSWER 7 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1992:490325 BIOSIS
DN BR43:99525
TI HYPERIMMUNIZATION OF HORSES FOR PRODUCTION OF **IMMUNE GLOBULIN** TO **BOTULINUM** TOXINS.
AU BROWN J E; TAYLOR K L; BROWN W L; CLAYTON M A; SCHMIDT J J; JAAX G P; FRANZ D R
CS U.S. ARMY MED. RES. INST. INFECTIOUS DIS., FORT DETRICK, FREDERICK, MD. 21702, USA.
SO TENTH WORLD CONGRESS ON ANIMAL, PLANT AND MICROBIAL TOXINS, SINGAPORE, SINGAPORE, NOVEMBER 3-8, 1991. TOXICON. (1992) 30 (5-6), 493.
CODEN: TOXIA6. ISSN: 0041-0101.
DT Conference
FS BR; OLD
LA English

L15 ANSWER 8 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB The extent of immunological similarity between tetanus toxin and **botulinum** toxins A, B, C1, and E was studied by using 10 antibodies produced against synthetic peptides representing different

responses. Although individual serum and mucosal antibody responses to C. difficile enterotoxin (toxin A) vary, one-third of patients with C. difficile diarrhea develop neutralizing serum antibodies. IgA in the serum, not IgG, is typically responsible for this neutralization, suggesting a unique role for serum IgA in response to C. difficile infection, an infection that is usually limited to the intestinal mucosa. The relationship of naturally occurring antitoxin antibodies to the clinical course of C. difficile infection is controversial. However, patients with chronic relapsing C. difficile diarrhea and low levels of IgG to toxin A have shown clinical responses following intravenous therapy with **immune globulin**. Antibody responses to non-toxin C. difficile proteins also occur, but their significance is only partially known.

AN 1998:54149 LIFESCI
TI Antibody responses to clostridial infection in humans
AU Johnson, S.
CS Med. Serv., VACHS Lakeside Div., 333 East Huron, Chicago, IL 60611, USA
SO CLIN. INFECT. DIS., (19970900) vol. 25, no. suppl. 2, pp. S173-S177. ISSN: 1058-4838.
DT Journal
FS J; F
LA English
SL English

L15 ANSWER 4 OF 10 LIFESCI COPYRIGHT 2003 CSA
AB During an outbreak of type E foodborne botulism in Cairo in 1991, an investigational equine F(ab') sub(2) "despeciated" heptavalent botulism **immune globulin** (dBIG) was provided to the Egyptian Ministry of Health by the U.S. Army. Of 54 patients known to have been treated with antitoxins, 4 received commercially available trivalent antitoxins, 45 received dBIG, and 5 received both commercial antitoxin and dBIG. Physicians recorded side effects in 10 (22%) of 45 patients who received dBIG; in nine cases, reactions were considered "mild," and in one case they were believed to be serum sickness. In contrast, possible serum sickness during hospitalization was recorded for two of four patients who were receiving commercial antitoxins. No complications of therapy were noted for any patient who was receiving both antitoxin types. In a separate study, 31 patients were contacted about their reactions to the antitoxin by telephone after discharge from the hospital. Seven (54%) of 13 patients attributed symptoms that they experienced while they were hospitalized to receipt of dBIG, while four (44%) of nine patients who indicated that they had received commercial antitoxins and one (20%) of five who received both commercial antitoxin and dBIG reported side effects before discharge. Data on the efficacy of the antitoxins were not obtained. In our experience, equine dBIG was at least as safe as commercially available antitoxins in treating type E foodborne botulism.

AN 97:109417 LIFESCI
TI Experience with the use of an investigational F(ab') sub(2) heptavalent botulism **immune globulin** of equine origin during an outbreak of type E botulism in Egypt
AU Hibbs, R.G.; Weber, J.T.; Corwin, A.; Allos, B.M.; El-Rehim, M.S.A.; El-Sharkawy, S.; Sarn, J.E.; McKee, K.T.,Jr.*
CS Communicable Disease Unit, MCXC-PM-CDU, Womack Army Medical Center, Fort Bragg, NC 28307-5000, USA
SO CLIN. INFECT. DIS., (19960800) vol. 23, no. 2, pp. 337-340. ISSN: 1058-4838.
DT Journal
FS J; A
LA English
SL English

L15 ANSWER 5 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AB Infant botulism is a rare disease caused by the release of toxin produced in the intestinal tract by Clostridium **botulinum**. The disease

15 ANSWER 1 OF 10 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 2002:519970 BIOSIS
DN PREV200200519970
TI Development of neutralizing serum antibodies to **botulinum** toxin in patients with infant botulism.
AU Arnon, S. (1); Maslanka, S.; Schechter, R. (1); Hatheway, C.
CS (1) California Department of Health Services, Berkeley, CA, 94704 USA
SO Naunyn-Schmiedeberg's Archives of Pharmacology, (June, 2002) Vol. 365, No. Supplement 2, pp. R11. print.
Meeting Info.: International Conference on Basic and Therapeutic Aspects of Botulinum and Tetanus Toxins Hannover, Germany June 08-12, 2002
ISSN: 0028-1298.
DT Conference
LA English

L15 ANSWER 2 OF 10 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 1
AB Pentavalent **botulinum** toxoid adsorbed (ABCDE) vaccine is intended to protect military personnel from battlefield exposures to **botulinum** serotypes A-E. To determine the neutralizing antibody levels in serum that are indicative of protection against aerosolized **botulinum** toxins, a guinea pig model of passive antibody transfer was developed. **Botulinum immune globulin** (BIG), derived from plasma of vaccinated volunteers, was administered to guinea pigs by intraperitoneal injection to attain neutralizing antibody levels in serum of ca. 0.25 U ml super(-1). Control groups were treated with vaccinia **immune globulin** (VIG), with dosages normalized to antibody content. Neutralizing antibody levels were determined by a mouse bioassay. Twenty-four hours after BIG treatment, animals were challenged with lethal levels (target of 25 x LCt sub(50)) of **botulinum** toxins by an inhalation route. Protection was defined as 80% or greater survival for BIG-treated animals. If protective, additional groups were treated with progressively smaller BIG dosages (75% decreases per iteration) and challenged with 25 x LCt sub(50) until protection was no longer afforded. Greater than 80% survival was observed at target levels of 0.25 U ml super(-1) for all five serotypes. Breakthrough mortality (>20%) was observed at test levels of 0.05, 0.004, 0.015, 0.014 and 0.003 U ml super(-1) for serotypes A-E, respectively. These results, along with neutralizing antibody measurements from clinical trials, can be used to predict human efficacy following vaccination with pentavalent **botulinum** toxoid adsorbed (ABCDE) vaccine.
AN 2000:111396 LIFESCI
TI Protection against **botulinum** toxins provided by passive immunization with **botulinum** human **immune globulin**: Evaluation using an inhalation model
AU Gelzleichter, T.R.; Myers, M.A.; Menton, R.G.; Niemuth, N.A.; Matthews, M.C.; Langford, M.J.
CS Battelle Memorial Institute, Medical Research and Evaluation Facility, Columbus, OH, USA
SO Journal of Applied Toxicology, (19991200) vol. 19, pp. S35-S38.
Meeting Info.: 11th Biennial Medical Defense Bioscience Review. Hunt Valley, Maryland (USA). 31 May-4 Jun 1998.
ISSN: 0260-437X.
DT Journal
TC Conference
FS J; X; N3
LA English
SL English

L15 ANSWER 3 OF 10 LIFESCI COPYRIGHT 2003 CSA DUPLICATE 2
AB Serum antibody responses to the major toxins produced by Clostridium difficile, Clostridium perfringens, Clostridium septicum, Clostridium tetani, and Clostridium **botulinum** have been documented following infection. Effective toxoid vaccines for tetanus and enteritis necroticans due to C. perfringens type C demonstrate the potential of antitoxin

(FILE 'HOME' ENTERED AT 16:28:48 ON 20 MAY 2003)

FILE 'BIOSIS, CABA, CAPLUS, EMBASE, LIFESCI, MEDLINE, SCISEARCH, USPATFULL, JAPIO' ENTERED AT 16:29:00 ON 20 MAY 2003

| | | |
|---|---|---|
| L1 | 6397 | S AOKI, K/AU |
| L2 | 0 | S L1 AND IMMUNE(W)GLOBULIN |
| L3 | 0 | S L1 AND IMMUN(W)GLOBULIN |
| L4 | 516870 | S TOXIN |
| L5 | 31 | S L1 AND L4 |
| L6 | 25 | DUP REM L5 (6 DUPLICATES REMOVED) |
| L7 | 13881 | S IMMUNE(W)GLOBULIN |
| L8 | 155 | S L7 AND BOTULINUM |
| L9 | 134 | DUP REM L8 (21 DUPLICATES REMOVED) |

9 ANSWER 130 OF 134 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1992:490325 BIOSIS
DN BR43:99525
TI HYPERIMMUNIZATION OF HORSES FOR PRODUCTION OF **IMMUNE GLOBULIN** TO **BOTULINUM** TOXINS.
AU BROWN J E; TAYLOR K L; BROWN W L; CLAYTON M A; SCHMIDT J J; JAAX G P; FRANZ D R
CS U.S. ARMÝ MED. RES. INST. INFECTIOUS DIS., FORT DETRICK, FREDERICK, MD. 21702, USA.
SO TENTH WORLD CONGRESS ON ANIMAL, PLANT AND MICROBIAL TOXINS, SINGAPORE, SINGAPORE, NOVEMBER 3-8, 1991. TOXICON. (1992) 30 (5-6), 493. CODEN: TOXIA6. ISSN: 0041-0101.
DT Conference
FS BR; OLD
LA English

Pentavalent **botulinum** toxoid adsorbed (ABCDE) vaccine is intended to protect military personnel from battlefield exposures to **botulinum** serotypes A-E. To determine the neutralizing antibody levels in serum that are indicative of protection against aerosolized **botulinum** toxins, a guinea pig model of passive antibody transfer was developed. **Botulinum immune globulin** (BIG), derived from plasma of vaccinated volunteers, was administered to guinea pigs by intraperitoneal injection to attain neutralizing antibody levels in serum of ca. 0.25 U ml-1. Control groups were treated with vaccinia **immune globulin** (VIG), with dosages normalized to antibody content. Neutralizing antibody levels were determined by a mouse bioassay. Twenty-four hours after BIG treatment, animals were challenged with lethal levels (target of 25 X LCt50) of **botulinum** toxins by an inhalation route. Protection was defined as 80% or greater survival for BIG-treated animals. If protective, additional groups were treated with progressively smaller BIG dosages (75% decreases per iteration) and challenged with 25 X LCt50 until protection was no longer afforded. Greater than 80% survival was observed at target levels of 0.25 U ml-1 for all five serotypes. Breakthrough mortality (>20%) was observed at test levels of 0.05, 0.004, 0.015, 0.014 and 0.003 U ml-1 for serotypes A-E, respectively. These results, along with neutralizing antibody measurements from clinical trials, can be used to predict human efficacy following vaccination with pentavalent **botulinum** toxoid adsorbed (ABCDE) vaccine.

AN 2000:175984 BIOSIS
DN PREV200000175984
TI Protection against **botulinum** toxins provided by passive immunization with **botulinum** human **immune globulin**: Evaluation using an inhalation model.
AU Gelzleichter, T. R. (1); Myers, M. A.; Menton, R. G.; Niemuth, N. A.; Matthews, M. C.; Langford, M. J.
CS (1) Medical Research and Evaluation Facility, Battelle Memorial Institute, Columbus, OH USA
SO Journal of Applied Toxicology., (Dec., 1999) Vol. 19, No. Suppl. 1, pp. S35-S38.
ISSN: 0260-437X.
DT Article
LA English
SL English